

WHAT IS CLAIMED IS:

1. A vibration isolator that prevents an image blur due to a vibration of a camera by moving a correcting optical system, the vibration isolator comprising:
 - a vibration speed determining device that determines a speed of the vibration;
 - a differentiating device that differentiates the speed determined by the vibration speed determining device;
 - an integrating device that integrates the speed determined by the vibration speed determining device;
 - a correcting device that corrects the integrated value calculated by the integrating device to substantially zero when the differentiated value calculated by the differentiating device is substantially zero; and
 - a controlling device that controls a position of the correcting optical system according to the integrated value.
2. A vibration isolator that prevents an image blur by moving a vibration isolating device according to a vibration of an apparatus determined by a vibration determining device, the vibration isolator comprising:
 - a switching device that turns on and off vibration isolation; and
 - a controlling device that keeps the vibration isolating device at a position until a predetermined time passes after the switching device turns on the vibration isolation and moves the vibration isolating device according to the vibration after the predetermined time passes.
3. The vibration isolator as defined in claim 2, wherein the controlling device stops the vibration isolating device at a position when the switching device turns off the vibration isolation.

4. The vibration isolator as defined in claim 2, wherein the controlling device gradually decreases a driving amount of the vibration isolating device to stop the vibration isolating device at a position after the switching device turns off the vibration isolation.

5. The vibration isolator as defined in claim 2, wherein the controlling device does not calculate a driving signal for driving the vibration isolating device when the vibration isolation is off and starts calculating the driving signal after the switching device turns on the vibration isolation.

6. A vibration isolator that prevents an image blur by moving a vibration isolating device according to a vibration of an apparatus determined by a vibration determining device, the vibration isolator comprising:

a switching device that turns on and off vibration isolation; and

a controlling device that keeps the vibration isolating device at an origin until a position of the vibration isolating device for preventing the image blur is the origin after the switching device turns on the vibration isolation and moves the vibration isolating device according to the vibration after the position of the vibration isolating device for preventing the image blur is the origin.

7. The vibration isolator as defined in claim 6, wherein the controlling device stops the vibration isolating device at a position when the switching device turns off the vibration isolation.

8. The vibration isolator as defined in claim 6, wherein the controlling device gradually decreases a driving amount of the vibration isolating device to stop the vibration isolating device at a position after the switching device turns off the vibration isolation.

9. The vibration isolator as defined in claim 6, wherein the controlling device does not calculate a driving signal for driving the vibration isolating device when the vibration isolation is off and starts calculating the driving signal after the switching device turns on the vibration isolation.

10. A vibration isolator that prevents an image blur by moving a vibration isolating device according to a vibration of an apparatus determined by a vibration determining device, the vibration isolator comprising:

a switching device that turns on and off vibration isolation; and

a controlling device that starts moving the vibration isolating device with a driving amount that is smaller than that for preventing the image blur when the switching device turns on the vibration isolation and drives the vibration isolating device while gradually increasing the driving amount to that for preventing the image blur.

11. The vibration isolator as defined in claim 10, wherein the controlling device stops the vibration isolating device at a position when the switching device turns off the vibration isolation.

12. The vibration isolator as defined in claim 10, wherein the controlling device gradually decreases a driving amount of the vibration isolating device to stop the vibration isolating device at a position after the switching device turns off the vibration isolation.

13. The vibration isolator as defined in claim 10, wherein the controlling device does not calculate a driving signal for driving the vibration isolating device when the vibration isolation is off and starts calculating the driving signal after the switching device turns on the vibration isolation.

14. A vibration isolator that determines a vibration of a camera with a determining device and moves a correcting optical system according to the vibration to prevent an image blur due to the vibration of the camera, wherein:

the determining device is attached to the camera through a vibration absorbing device that absorbs a vibration due to a movement of the correcting optical system.

15. The vibration isolator as defined in claim 14, wherein the vibration absorbing device is an elastic member.

16. A vibration isolator that determines a vibration of a camera with a determining device and moves a correcting optical system according to the vibration to prevent an image blur due to the vibration of the camera, wherein:

the determining device is provided separately from the camera.